



# **Energy Division Program Summaries**



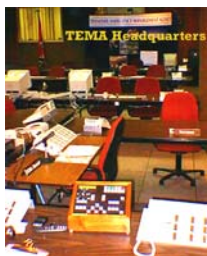
# Energy Division Program Summaries



**Local Government Energy Loan Program** - The LGELP is a revolving loan available to local government entities to implement energy conservation projects. The maximum loan is \$500,000 and loan payments are made annually over a period of seven years. Interest rates are 3% for local governments for the entire term of the loan. This program was converted from a grant program in the spring of 1991.



**Small Business Energy Loan Program** - The SBELP is a revolving loan available to small businesses of less than 300 employees or \$3.5 million in annual gross receipts. The maximum loan amount of \$100,000 is repayable over a period of time equal to the energy savings payback of the project. The maximum allowable payback is seven years. Loans must be used for the implementation of energy efficiency measures on existing structures.



**Tennessee Energy Emergency Planning** - The Energy Division's legislation established an energy emergency program to encompass the activities pertinent to energy emergency preparedness. The program has been an integral part of the Energy Division since its inception. In fact, the energy crises of the 1970's provided the impetus for establishing the Tennessee Energy Authority (now the Energy Division). One of its first undertakings was the development of an early version of a motor fuel contingency plan to provide alternative methods for addressing fuel shortages within the state.

**State Energy Program (SEP)** - The SEP is an annual grant from the DOE to state energy agencies for the purpose of administering and conducting projects that promote energy efficiency in all segments of society. There have been a wide variety of these activities over the years. Current elements of the SEP include the following program initiatives:



**Tennessee Energy Education Network** - TEEN promotes energy education in grades K-12 statewide. TEEN develops and distributes energy educational materials for teachers, students and classrooms, conducts in-service training workshops for teachers and classroom presentations for students, conducts annual energy contests, energy education training conferences for students, publishes a bimonthly newsletter, and maintains a website on the program for teachers and students.



**Energy Emergency Planning** - The Energy Division established Energy Emergency Planning as a component of the SEP, incorporating the division's original energy contingency activities and establishing a network of organizations and activities relative to emergency planning. The program also includes the development of a Geographical Information System (GIS) administered by ECD's Local Planning Offices, which provides infrastructure information necessary for optimal energy emergency preparedness. The primary goal of the Energy Division/Local Planning Assistance Office's GIS project has been to develop a digital cartographic base capable of geographically locating a wide range of information suitable for emergency preparedness, local planning, and other management applications.



**Industries of the Future** - Tennessee Energy Division works with the US DOE Industries of the Future Program focusing on the state's metal casting and aluminum industries. TTU Center for Manufacturing Research won a metal casting Industries of the Future solicitation worth \$1.5 Million and another \$1.7 Million in matching. They are working with Waupaca, a Tennessee metal casting industry as a partner.



**Energy Efficient Building Codes Program** – Tennessee has given local codes jurisdictions the option of using either the 1992 version of the Model Energy Code (MEC) or the 2000 version of the International Energy Conservation Code (IECC) with 2002 amendments.



**Clean Cities Program** – The Clean Cities Program is sponsored by the U.S. Department of Energy and was created to advance the use of cars and trucks powered by alternative fuels, which in turn reduce our nation's dependence on imported petroleum. The program promotes the purchase of alternative fuel vehicles and the expansion of the AFV-refueling infrastructure. The Energy Division is providing administrative grant funding to the cities of Nashville and Knoxville, which have both received designation from DOE as Clean Cities under the federal program.



**Energy Star Program** - Energy Star is a voluntary program sponsored by the U.S. Department of Energy (DOE) and the Environmental Protection Agency (EPA). This federal partnership strives to increase consumer awareness and desire for energy efficient products. The EPA also provides unbiased technical information, support services, public relations assistance, and access to a broad range of resources and tools. The State Energy Division recently became a partner in this program and is currently promoting Energy Star efficiency standards in K-12 public schools on a statewide basis. The promotion is being done through the Local Government Energy Loan Program, which can lend local governments/schools up to \$500,000 to install energy efficiency measures in their buildings.



**Public Outreach/Multi-Media Center** - The public outreach program targets small businesses, local governments, and residential energy users with a series of measures that help them to make informed energy decisions. These measures include self-help publications that contain current information on energy data and practical energy conservation techniques and technologies, a toll-free energy hotline and information center for energy users seeking energy information and direct correspondence that promotes the economic advantages of energy conservation. The Multi-Media Center makes available computer technology and technical assistance to ECD staff for their design and development of multimedia projects.

**Grants Management** - The primary objective of this program is to maximize the technology transfer and energy savings potential of the State Energy Program (SEP) grant, Petroleum Violation Escrow (PVE) funds, and other competitive grant funds through program planning, management, and implementation of the program monitoring function. The program monitoring responsibilities include tracking the accomplishment of budgeting goals and milestones against baselines established in the state plan; identifying and analyzing program accomplishments or problems; developing and initiating corrective action; analyzing performance of contractors, subcontractors, and subgrantees in regard to contract provisions; and tracking corrective or follow-up activity.

**Special Projects** – In recent years, the DOE has awarded funds competitively in a variety of energy categories. Last year the Energy Division was awarded five grants out of ten submitted. These funds are in addition to the regular funding given by the DOE for implementation of the State Energy Program (SEP). Current Special Projects are listed below:



**Rebuild America/Building Technologies in Higher Education** - This program seeks to work with the Rebuild America Partnership to produce facility specific energy management plans for higher education institutions across the State of Tennessee. The purpose of this project is to aggressively market the "State Energy Action Plan," which is designed to produce real energy savings, to officials from higher education, and to provide guidance for the creation of facility-specific energy management plans.



**Wind Prospecting in The Tennessee Valley Region** - Wind Prospecting in The Tennessee Valley Region is a 3-year \$180,000 joint Energy Division, Tennessee Valley Authority and Appalachian State University project funded by the US Department of Energy under its 2002 Special Projects cycle. The purpose of the project is to assess the wind generating potential of various high altitude sites in Eastern Tennessee. During the fiscal year, despite some setbacks involving weather and vandalism, significant progress was made in identifying and monitoring promising wind sites in Eastern Tennessee. Data collected thus far are being analyzed and will be compiled into a report that should be available in early 2005.



**Energy Efficiency Building Codes Workshops** - The Energy Division sponsored a series of four residential and one commercial workshop on the International Energy Conservation Code. Over 65 builders, architects, engineers, designers and codes officials attended these workshops which were held in Nashville, Memphis, Chattanooga and Knoxville during May and June 2004. The Energy Division hopes to sponsor several more workshops during the fall of 2004 and spring 2005.



**Building The High Performance Home Workshop** - The Energy Division co-sponsored, along with the Middle Tennessee Home Builders Association, a one-day seminar, conducted by the Southface Energy Institute in Atlanta, on Building The High Performance Home. This workshop presented an overview of Southface's more extensive, week long, workshop targeted toward builders, architects, engineers and designers. Over 30 Middle Tennessee builders attended this workshop. As a result of the interest generated, the Energy Division is going to sponsor a series of at least four more of these one-day seminars at various locations around the state during the fall of 2004 and spring of 2005. The Energy Division is also assessing the sponsorship of a couple of the week long, in-depth, hands-on High Performance Home workshops during 2005.



**Tennessee Million Solar Roofs (MSR) Initiative** - The Million Solar Roofs (MSR) is an USDOE-sponsored initiative to promote the utilization of solar energy. Tennessee was accepted as a Million Solar Roofs partner on April 22, 2002 by committing to the eventual installation of 500 solar energy generation systems by the year 2010. The Tennessee Partnership is composed of many sub-partners including the Tennessee Valley Authority, the Tennessee Electric Cooperative Association, the Tennessee Municipal Electric Power Association, the Governor's Interagency Energy



Policy Work Group and the Tennessee Energy Education Network. Subsequent to being accepted as a partner, the Energy Division entered into an agreement with the Southern Alliance for Clean Energy (SACE) to organize, promote and coordinate the MSR Initiative in Tennessee.



**Distributed Energy Technologies/Bipolar Plate Fuel Cells** Tennessee received a DOE Special Project grant under Distributed Energy Technologies for fuel cell manufacturing. This project will examine the manufacturing issues associated with nitride protected metal bipolar plates and to demonstrate technical feasibility and commercial viability by performance evaluation in an operating fuel cell stack. To accomplish this a partnership between ORNL, Tennessee Technological University (TTU), University of Minnesota (UM), and Dana Corporation has been formed.